



TECHNOLOGY HORIZONS 2011 FALL CONFERENCE
October 26 - 28, 2011
Cavallo Point
601 Murray Circle | Fort Baker | Sausalito, CA 94965

DRAFT AGENDA

DAY ONE: WEDNESDAY, OCTOBER 26, 2011

- 1:00 P.M. **OPTIONAL PRE-CONFERENCE WORKSHOP: A PLANET OF CIVIC LABORATORIES: BOTTOM-UP INNOVATIONS FOR THE SMART CITY**
- 5:30 P.M. **RECEPTION AND REGISTRATION**
- 6:00 P.M. **DINNER**
- 6:45 P.M. **SPECIAL GUEST SPEAKER DISCUSSION**
Please join us for cocktails and a presentation by Jay Nath, Director of Innovation for the City of San Francisco, and Peter Hirshberg, Chairman of the Gray Area Foundation for the Arts on The Summer of Smart, an intensive, three-month experiment in urban innovation bringing together urbanists of many disciplines – developers, designers, planners, journalists, civic leaders, community activists, and more – to address the most pressing issues facing cities today.

DAY TWO: THURSDAY, OCTOBER 27, 2011

THE FUTURE OF SCIENCE: A MULTIVERSE OF EXPLORATION

Space hacking. Invisibility cloaks. Engineered evolution. These are only some of the provocative futures we're exploring in our Future Of Science research. Please join us as we share our forecast of the biggest transformations shaping key science domains, from biology and materials science to physics, neuroscience, and others. Learn how the enterprise of science itself is undergoing a shift from the insular and closed structures of academia,

industrial, and military research, toward open models based on social connection, data commons, and democratized tools and technology.

A new ecology of science is emerging. Find out how you can participate in and leverage this new multiverse of exploration.

8:00 A.M. **BREAKFAST**

8:30 A.M. **WELCOME**
Lyn Jeffery, Technology Horizons Program Director

8:45 A.M. **INTRODUCTION: MAPPING THE FUTURE OF SCIENCE**
David Pescovitz and Ariel Waldman -- Institute for the Future
To understand the multiverse before us, you need a map, and IFTF has prepared one for you. We will start the day with an overview of the IFTF Future of Science map, focusing on the big scientific stories of the next decade and the new frameworks surrounding them.

9:20 A.M. **LIGHTNING TALKS: SCIENTIFIC SIGNALS**
Five pioneers from the future of science will provoke and amaze us with short presentations about groundbreaking research on synthetic biology, solar energy, programmable life, and maps of the human mind.

- Zach Serber, [Amyris](#), "Synthetic Biology and Programmable Life"
- [Lina Nilsson](#), UC Berkeley, "DIY Lab Instruments"
- [Jennifer Dionne](#), Stanford, "Metamaterials, Solar Energy, and Invisibility Cloaks"
- and others

10:30 A.M. **BREAK**

10:50 A.M. **OPENING SCIENCE: A PANEL DISCUSSION**
From DIY biotechnology to space hacking, new models are emerging for participatory science that blurs the line between accredited experts and amateurs. But this breaking down of traditional structures raises new challenges around intellectual property, publishing, and even public safety.

- Marina Gorbis, executive director, IFTF (moderator)
- Ariel Waldman, Spacehack.org and IFTF
- [William Gunn, Mendeley](#)
- [David Harris](#), formerly of SLAC National Accelerator Laboratory,

science communicator

12:00 P.M.

LUNCH

1:20 P.M.

LIGHTNING TALKS: SCIENTIFIC SIGNALS

We'll continue our journey across the map multiverse with a group of people who are making the future of science. They'll unpack the stories on our map, dropping mind grenades on such topics as neuroscience, genomics, molecular engineering, and human perception.

- [Ian Holmes, UC Berkeley](#), "Facebook for Genes"
- [Art Olson, Scripps Research Institute](#), "Chemistry, 3D Printing, and Augmented Reality"
- [Jack Gallant, UC Berkeley](#), "Building A Dream Recorder"
- [Luigi Anzivino](#), "Magic and Neuroscience"

2:30 P.M.

BREAK

3:00 P.M.

IMPOSSIBLE SCIENCE: A PANEL

From teleportation to quantum consciousness to faster-than-light travel, the fringes of science are slowly but surely folding back into the center. How can we reframe our understanding of the impossible, and what happens when we do?

- David Pescovitz, IFTF/Boing Boing (*moderator*)
- [Stanley Klein, UC Berkeley](#), "Quantum Weirdness and the Brain"
- and others

4:00 P.M.

BREAK

4:20 P.M.

PUTTING SCIENCE TO WORK

In this table exercise, we'll consider how our organizations can better engage with scientists and the new structures emerging around science to accelerate innovation and reveal new opportunities.

4:45 P.M.

SENSE-MAKING AND SO WHAT'S

5:30 P.M.

RECEPTION

6:00 P.M.

DINNER AND KEYNOTE: ADAM SAVAGE, MYTHBUSTERS

[Adam Savage](#), co-host of the Discovery Channel television series MythBusters, will talk about the future of education and embracing the fun and "danger" in science.

7:30 P.M.

CLOSE**DAY THREE: FRIDAY, OCTOBER 28, 2011****KIDSTECH: THE MAGIC OF KID'S TECHNOLOGY**

It is a wondrous, scary, fun, complex time to be a kid. New applications and technologies are introducing computational, interactive, blended realities to the fertile minds of children. These technologies are shaping those minds around interfaces and interactions that are profoundly different from their parents' experience. For several years IFTF has been exploring the amplification of transformative power that networked technologies offer to individuals. Children are now coming of age in ecologies of enabling (and control) technologies, influencing the development of learning, creativity, and thinking styles that they will carry into adulthood.

DRAFT AGENDA

8:00 A.M.

BREAKFAST

8:30 A.M.

INTRODUCTION: THE MAGIC OF KIDTECH*Jake Dunagan, Research Director*

8:45 A.M.

KIDSTECH: HEALTH*Rachel Maguire-IFTF*

First Lady Michelle Obama's *Let's Move!* sparked a national dialogue on designing fun and engaging digital tools that encourage children to eat better and be more physically active. This inspiring initiative only scratched the surface on the endless potential for technologies to improve children's health. New behaviors emerging out of kids' love for these technologies are not without health risks. This session will discuss the future possibilities for improving children's health through KidsTech and strategies around how we'll minimize, mitigate, and even treat those health risks.

9:30 A.M.

KIDSTECH: LEARNING*Devin Fidler-IFTF*

The building blocks that shape kids' learning are being reshuffled as a wave of new learning tools are being deployed. As this new generation of technologies moves toward maturity, they are actively shaping the

kids who use them. This session will take a deeper look at new ways for children to explore and learn about the world and will ask the question, "how far will these approaches go?"

10:15 A.M.

BREAK

10:45 A.M.

KIDSTECH: SECURITY

Jake Dunagan-IFTF

[Gever Tulley](#), author, *50 Dangerous Things (You Should Let Your Children Do)*

A core dilemma for modern parents has been how to protect children without imprisoning them in a protective bubble—how to allow adventure, exploration, and freedom, without undue risk of long-term negative consequences. The next decade will see a world of technological guardian angels—invisible protections that become manifest only when absolutely necessary. IFTF Research Director Jake Dunagan, and Gever Tulley, author of *50 Dangerous Things (You Should Let Your Children Do)*, will explore the future of kid safety technologies and the kinds of kids (and parents) these technologies might create.

11:30 A.M.

CROSS-DIMENSIONAL PLAYGROUNDS: KIDSTECH AND PLAY

Lyn Jeffery-IFTF

[Scott Snibbe – Snibbe Interactive](#)

Like adults, children are spending more and more time immersed in digital environments, at home, school, and on the go. As time spent outdoors declines, touch-screen devices, animated toys, and virtual worlds are the new context for fun, social interactions. We'll explore the effect of multi-dimensional play on social relationships, creativity, and sensory engagement with the world. We'll also be joined by interactive media artist Scott Snibbe, a pioneer in creating intimate experiences for people through technologies of film, touch, computing, and sound. We'll ask Snibbe for his personal forecasts on play in 2021.

12:15 P.M.

LUNCH + KEYNOTE

[Mark Frauenfelder- Make, Boing Boing](#)

1:15 P.M.

SENSE-MAKING AND SO WHAT'S

1:45 P.M.

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